

REMARKS

Applicants remarks are responsive to the Office Action dated August 15, 2003. Claims 1-4 are rejected under 35 U.S.C. § 103(a) as being unpatentable over Carey et al., U.S. Patent No. 5,597,469 ("Carey") in combination with DiStefano et al. U.S. Patent No. 6,324,754 ("DiStefano"). As already reiterated to patent Examiner, Mr. Talbot during a telephone interview conducted on December 12, 2003, applicants traverse the rejection of claims 1-4 and respectfully request reconsideration and allowance of the claims in the present application. As requested by the Examiner, detailed below is a recount of arguments made during the December 12 telephone interview.

The Examiner cites Carey as teaching each and every recitation included within claim 1 of the present application except for the fact that Carey fails to teach cooling the solder to solidify it into solder balls. However, the Examiner cites DiStefano as teaching this recitation and contends that it would have been obvious for one skilled in the art to modify the teachings of Carey with the teachings of DiStefano.

With all due respect to the Examiner, Carey does not teach all the recitations included in claim 1 for which it is cited, specifically Carey does not teach that some of the solder masses are electrically isolated from a potential plane element.

As discussed during the telephone interview of December 12, Carey is limited in two aspects. First, while Carey does teach that a solder mass layer may be employed and consist of a non-solder wettable metal film, this layer is removed by etching or some other process prior to a final product being produced. In the Office Action, the Examiner has misappropriately assumed that the solder mask layer in an intermediate process may be equivalent to a potential plane element. Secondly, if one were even to assume that the final product of Carey had an element equivalent to a potential plane

element such as possibly layer 16 of Fig. 6, it can be clearly seen that solder ball 40 is in direct contact with an edge 16' of layer 16. Thus, the solder mass is not electrically isolated from layer 16 whether or not layer 16 can be seen equivalent to a potential plane element. Further support for this contact between the solder mass and layer 16 can be found at column 6, line 1 et seq.

Additionally, DiStefano which is cited for teaching cooling the solder to form solder balls also does not teach the recitation wherein some of the solder masses are electrically isolated from a potential plane element. While DiStefano does teach providing a solder mass layer to a dielectric element, the solder mass element layer is limited in that it is disclosed as being a dielectric layer. (Col. 6, lns. 35-37.) Additionally, the solder mass layer may be formed from conventional polymeric materials as contrasted with a potential plane element. (Col. 7, lns. 12-15.) Thus, DiStefano also does not teach having some of the solder mass layers being electrically isolated from the potential plane element.

Claims 2-4 depend from claim 1 and for similar arguments discussed with reference to claim 1 should also be deemed to contain patentable matter.

As it is believed that all of the rejections set forth in the Official Action have been fully met, favorable reconsideration and allowance are earnestly solicited.

If, however, for any reason the Examiner does not believe that such action can be taken at this time, it is respectfully requested that he telephone applicants' attorney at (908) 654-5000 in order to overcome any additional objections which he might have.

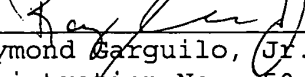
Application No.: 09/942,386

Docket No.: TESSERA 3.0-176 DIV

If there are any additional charges in connection with this requested amendment, the Examiner is authorized to charge Deposit Account No. 12-1095 therefor.

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Respectfully submitted,

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